

# Notice of Allowability

Application No.

09/613,039

Examiner

Sahera Halim

Applicant(s)

CHERITON, DAVID R.

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed on 4/08/2005.
2. ☒ The allowed claim(s) is/are 1-6, 8-17, 24-29, 31-43, 45-58, 60-67 renumbered as 1-57.
3. ☒ The drawings filed on 10 July 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 4/14/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 6/3/2005
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**ZARNI MAUNG**  
**SUPERVISORY PATENT EXAMINER**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Sidney Johnston (Reg. # 29,548) on June 6, 2005.
3. The application has been amended as follows:

### **IN THE CLAIMS**

- (a) Please cancel claims 7, 30, 44 and 59.
- (b) Claim 1, line 8, after ",", and before "and", please insert -- the output of the top-level associative memory has a length that is shorter than a length of the one or more fields of the data string -- ;
- (c) Claim 8 line 1, please delete "claim 7" and insert -- claim 1--;
- (d) Claim 24 line 8, after ";" and before "and", please insert -- arranging the output of the top-level associative memory to have a length that is shorter than a length of the one or more fields of the data string--;
- (f) Claim 28 line 1, please delete "claim 1" and insert -- claim 24 --;

(g) Claim 38 line 8, after “;” and before “and”, please insert -- means for arranging the output of the top-level associative memory to have a length that is shorter than a length of the one or more fields of the data string --;

(h) Claim 52 line 8, after “;” and before “and”, please insert -- the output of the top-level associative memory has a length that is shorter than a length of the one or more fields of the data string -- ;

### **REASON FOR ALLOWANCE**

4. The following is an examiner's statement of reasons for allowance: Claims 1-6, 8-17, 24-29, 31-43, 45-58, and 60-67 are allowable over the prior art of record. The prior art of record does not teach or suggest all the limitations recited in the claims.

The examiner has found that the prior art of record does not teach or suggest or render obvious a hierarchical memory structure for use in matching a data string having a plurality of fields. The hierarchical memory having a top-level associative memory and at least one next-level associative memory. The fields of data strings are received at the top-level associative memory, matched and the output is provided as input to the next-level associative memory. Specifically the major difference in the independent claims not found in the prior art of record is that the provided output from the top-level associative memory, after the match is shorter in length than the length of the fields of the data strings that are input into the top-level associative memory.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance" or "Comments on Examiner's Amendment."

### **CONCLUSION**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sahera Halim whose telephone number is (571) 272-4003. The examiner can normally be reached on M-F from 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sahera Halim  
Patent Examiner  
AU : 2157

June 6, 2005

  
**ZARNI MAUNG**  
**SUPERVISORY PATENT EXAMINER**